

**Identifying Best Practices for the Interlibrary Loan/Document
Delivery Service: A Case Study at New Mexico State University**

**Amigos Fellowship Final Report
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Submitted by

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Identifying Best Practices for the Interlibrary Loan/Document Delivery Service: A Case Study at New Mexico State University

AMIGOS Fellowship Final Report

To meet the requirements of the Amigos Fellowship, Karen Stabler and Cynthia Watkins respectfully submit this report to the Amigos Bibliographic Council, Inc.

A. Summary of Activities

1. Background

The New Mexico State University implemented a strategic plan based on Total Quality Management philosophies in 1997. Although benchmarking was not part of the long-range strategic plan, the staff in the Interlibrary Loan/ Document Delivery (ILL/DD) Unit wanted to measure its service to see how effective the unit was and identify where improvements could be made.

2. Purpose

There were six objectives to the project:

- Identify all aspects of current practices at NMSU and measure the service to determine its effectiveness including: fill-rate, turnaround time, costs, and user satisfaction.
- Improve the ILL/DD service by increasing the fill-rate, lowering the turnaround time, cutting costs, and improving user satisfaction.
- Compare staffing, costs, technology, and procedures with other ILL/DD services across the country.
- Implement practices that would improve the service at NMSU.
- Disseminate our findings.
- Used as a mentoring project for a newly hired librarian in the Unit.

3. Preparation

In order to prepare for the project the staff conducted a literature search, developed a user survey questionnaire, attended training sessions, and made flow charts of the procedures.

4. *Tasks*

The basis of our study was to examine four areas of the ILL/DD service: turnaround time, costs, fill-rate, and user satisfaction. We needed to define the parameters of each area, measure our service, and investigate factors to improve results. The 1996 Performance Measures Study provided us with benchmarks and methods on how to proceed. After clearly understanding our service, we decided to make site visits to the following libraries: Arizona State University, Emory University, Kansas State University, University of Arizona, University of Georgia, and the University of Kansas.

5. *Outcomes*

Flow charts: The staff developed flow charts for borrowing, lending, and document delivery services. We found this to be a difficult process and it took much longer than expected. The original purpose was to look for duplication of steps or possible elimination of steps. By the time we completed this activity we found out that flowcharting forced us to analyze our process, identified problem areas, told us how different steps were related. We ultimately used the flow charts for training our student assistants. (See section 3.)

Turnaround Time: Nationally turnaround time has been improving, but users still do not think it is fast enough. The 1996 Performance Measures Study found the average turnaround time for research libraries was 15.6 calendar days. In that same study libraries with the fastest turnaround time took 8.8 calendar days for loans and 10.5 calendar days for copies. In 1999-2000 at NMSU, the average turnaround time was 11.7 calendar days for loans and 6.7 calendar days for copies. (See section 4.) New technology and improved delivery methods are the major factors in reducing time. From 1998-2000, NMSU made the following technological enhancements:

- **Web pages for ordering requests:** The staff developed web pages for all requests not user-initiated. Most all requests are ordered by this method.
- **ClioRequest:** ClioRequest created by Perkins and Associates is the interface between the web order form and a format compatible with OCLC searching. One of the major advantages of this software is the elimination of re-keying the requested material. In addition, one can directly e-mail from ClioRequest. For example, the National Library of Agriculture prefers to receive requests via e-mail.
- **CLIO:** CLIO is a management software program. Value added features include overdue notices, billing, invoicing, archiving, tracking copyright, and keeping statistics. The software works well with the OCLC ILL Prism subsystem in saving screens of OCLC records and updating them in the various stages of the process. NMSU has a backup system where records are saved every 24 hours. Because of the features of the software and the backup, we have been able to eliminate paper files.
- **IFM:** Interlibrary Loan Fee Management is an OCLC enhancement that eliminates individual invoicing. For those libraries that have activated the IFM function, bills are paid through monthly OCLC billing. At NMSU, each month a staff member reconciles the charges and payments with the information in CLIO. There continues to be a few libraries that do not participate; thus, invoicing is necessary in those cases.

- **ARIEL:** the Research Libraries Group developed this software in 1990. It works by scanning articles to a TIFF file and then sending through the Internet using FTP (file transfer protocol). The advantages of using ARIEL over fax are the quality of print and the elimination of long distance telephone charges. ARIEL has improved the turnaround time for copies.
- **Prospero:** Prospero is software developed by the Ohio Medical Library that converts the TIFF file sent on ARIEL to a PDF file. Thus, the request can be sent directly to the desktop.
- **Completed custom holdings:** Custom holdings allow a library to prioritize holdings displays so that the string of libraries is to the preferred lenders.
- **OCLC Direct:** When users order a book found on the *WorldCat* database in FirstSearch, their requests are sent automatically bypassing the ILL/DD office if there is a string of five libraries that own the book. If there are not five libraries listed, then the request goes to the review file. For year 1999-2000, 2,447 requests were ordered through OCLC Direct.

Delivery methods affect turnaround times. In recent years, most academic libraries use ARIEL to transit copy requests. ARIEL is economical, fast, and produces superior quality. Because three-fourths of our requests are for copies, turnaround time has improved. Delivery of loans is more problematic. The three methods observed in our site visits are U.S. Postal Service's library rate, UPS second day air, or a courier service. At NMSU, we have tried all of these methods and found Pony Express to be the most effective; however, they went bankrupt in May 2000. For five months, we tried UPS second day air and found no difference in turnaround time using the OCLC monthly statistics. We currently use U.S. Postal Service's library rate and Trans-Amigos Express. We have not yet evaluated Trans-Amigos Express.

In addition to technology and delivery, our site visits confirmed the advantages of a strong intrastate system. Also, many libraries are joining a new type of ILL consortia supporting free priority service, special handling, and developing delivery to the desktop. Our findings indicate that many libraries receive from 25 to 50 percent of their requests within the state. In 1999-2000, NMSU received 12 percent of its requests from New Mexican libraries. New Mexico is a geographically large but sparsely populated state. Many libraries are joining new consortia such as RAPID, an innovative system developed by Colorado State University and the Big Twelve Plus (BTP) to provide free, priority service to the desktop. Emphasis is also on liberal lending policies. NMSU belongs to the following traditional consortia:

- Amigos/BCR Reciprocal Interlibrary Loan Agreement
- Carla (Consortium Agriculture Research Library Association)
- Ariellvis (Libraries very interested in sharing)
- AmiNet
- One-on-one reciprocal agreements made by our staff with the staff of other libraries

Our consortia represent the original ILL consortia where emphasis was primarily on free service. Thus, we depend heavily on document delivery suppliers.

Some libraries have already implemented, others are developing, direct borrowing for its users. Basically, the user searches selected library catalogs and orders directly. Since this is not a library-to-library operation, it often is handled by Circulation. Reports indicate this method is cost effective and has an excellent turnaround time.

Although lending is very important, we did not investigate this area extensively because turnaround time was acceptable. For loans, CLIO statistics showed a turnaround time of .9 days and .7 days for copies.

Costs: Costs for ILL have been decreasing. In 1972, the ARL Study found that the average unit cost for a borrowing transaction was \$7.61 and a lending transaction was \$4.67. The 1992 ARL/RLG study found that the average unit costs for a borrowing transaction were \$18.62 and \$10.93 for lending. The 1996 study found that the average unit borrowing cost was \$18.65 and \$9.48 for lending. For year 1999-2000, NMSU's average cost for a borrowing transaction was \$17.84 and \$7.81 for lending. (See section 5.) The table below compares the three ARL, studies with NMSU's costs and shows what the costs would have been in 1999 dollars.

BORROWING COSTS			LENDING COSTS		
Years	Actual Costs	1999 Dollars	Years	Actual Costs	1999 Dollars
1972	\$ 7.61	\$31.31	1972	\$ 4.67	\$19.22
1993	\$18.62	\$22.62	1993	\$10.93	\$13.01
1996	\$18.65	\$20.48	1996	\$ 9.84	\$10.39
1999	\$17.84	\$17.84	1999	\$ 7.81	\$7.81

When looking at cost factors such as staffing, networks and communication charges, and supplies, equipment/software, and borrowing fees, two areas where there were significant differences between NMSU and the national average are staffing and borrowing fees.

In the 1996 study 66% of the borrowing cost and 75% of the lending cost was attributed to staff. For the last decade, NMSU has depended on staff and student assistants for ILL.

Our staff costs were 48% for borrowing and 62% for lending. The libraries visited have reduced staff since 1996. At NMSU, borrowing, lending, and document delivery each had student assistants working in that particular area. In our site visits, we learned that pooling all the student assistants together and planning their work by time slots may be more effective. Our borrowing fees were much higher than what was found in the 1996 study. Three fourths of our requests are for copies and one-fourth for loans. NMSU heavily depends on document delivery vendors and because one must pay copyright for all requests, the price is high. NMSU spent \$97,034.03 to purchase articles from document delivery suppliers, \$13,753.50 to purchase dissertations, and \$5,103.72 for borrowing fees to other libraries. At the University of Arizona, which also heavily depends on document delivery, vendors found that 65% of the cost is due to copyright royalties.

We were surprised by the cost of delivery of materials. We think these costs will drop as we sparingly use fax and send most copies via ARIEL. Last year we also signed a contract with Trans-Amigos Express.

COSTS FOR 1999-2000			
Type of Delivery	Number	Cost	Average Cost
Fax		\$ 4,902.80	
Pony Express	1,800	\$ 276.00	1.82
UPS	1,514	\$ 8,408.65	5.55
U.S. Mail	7,678	\$15,586.34	2.03
Total	10,992	\$28,173.79	

Fill Rate: Fill rate is determined by dividing the total number of filled requests by the total number of requests received. The ARL ILL/DD Performance Measures Study found the average fill-rate was 85%. That study recommended libraries should fill at 95%. NMSU's average fill rate for the last fourteen years was 83%; however, for the last five years the average fill rate was 90%. In order to improve our fill rate we took advantage of all the relevant Amigos training. (See section 6.) We also looked at different policies to see if they were too restrictive. Areas examined included types of materials requested such as audio-visual materials, dissertations, books available at our library, and electronic journals. Our site visits confirmed our policies were similar to other libraries but with some variations.

- During our site visits, we found many libraries request audio-visual materials. This fact sometimes lowers fill rate because audio-visual materials are more difficult to obtain.
- Policies on borrowing dissertations vary from requiring the user to purchase directly from University Microfilms to the library purchasing for the user. Formerly NMSU ordered free of charge dissertations for its primary users, faculty and graduate students. This policy has now been changed because of financial reasons; thus, our fill rate may go down.
- Some libraries will not order any material available at the home library; others will order if there is a compelling reason. At NMSU, many requests are for books on the southwest. These books are held in Special Collections and thus must be used in that area. Users frequently order these books because they feel Special Collections is too restrictive and hours limited. In other libraries, a second copy is most often purchased for the general collection.
- NMSU and the libraries visited search for electronic journals if there is a clear link in the online catalog. Libraries differ on how active the ILL/DD office is informing cataloging when an electronic journal is found but not linked.

Lending:

In the 1996 study, the average lending fill rate for research libraries was 58%. For the last fifteen years, our lending fill rate for has ranged from 43 to 57 %. Twenty-four percent of the filled lending requests are for New Mexican libraries. Using the OCLC "reasons for no" from July 2000 through December 2000, the following are the most common reasons why NMSU cannot fill:

- Lacking the particular periodical volume 55%, i.e., we did not own the issue

- Not on shelf 12%
- In use 10%
- Non-circulating 8%

NMSU does not have its holdings on the OCLC Union List of Serials. The process of inputting this information has begun. This step should save everybody time in the future — the user, the lending library, and the borrowing library.

User satisfaction: There were three methods used to ascertain users needs. A user survey was administered to 490 randomly selected people. One year later, the Library held four faculty focus groups dealing with library services. (See section 7.) Thirdly, we kept comments made from our e-mails. (See section 8.) We found users were generally satisfied with the service. Some, mostly undergraduates, did not know about the service and thus we did the following promotional work:

- Held an open house
- Developed a brochure
- Designed a bookmark
- Wrote article about service in every issue of *Citations, the NMSU Library Newsletter*
- Maintain a display case in lobby of Library highlighting current faculty research

6. Recommendations

Benchmarking would be more effective if it was a library-wide activity. In our case, only staff members in ILL/DD participated. More and better improvements could be made if the library units work together. Areas that need to be involved with ILL/DD include cataloging, circulation, collection development, reference, and systems.

Need to more fully integrate the ILL software with the online catalog. Examples would include automatically checking for blocks, fines, etc. For lending requests, staff should be able to cut and paste call number onto requests.

Since the majority of our requests are for copies, and NMSU needs to find a better place to obtain articles. Currently we do not have a strong intrastate system and we do not belong to a new type consortium- thus, we heavily depend on document delivery services. They are reasonably fast but are more expensive.

NMSU ILL/DD staff needs to better integrate these two services - interlibrary loan and document delivery.

Install Ariel III. Expectations continue to grow with the use of more technology. Ariel III allows for color copies and post to the web.

Investigate ways to eliminate processing time for materials received. Most copies should be sent to the desktop.

Manage student assistants more effectively.

The next time a cost analysis is done copies should be separated from loans. There are basic differences such as copyright fees, delivery of materials, and where to obtain the materials.

Get our serials holdings on the OCLC Union List of Serials.

Reexamine library policies such as books on the southwest and dissertations to better serve our users.

Encourage and support direct borrowing.

Because focus groups gather more general information, it would be better to have the focus groups first and then develop a questionnaire.

C. Evaluation

The Amigos Fellowship supported professional development. We disseminated information in the following ways:

“Interlibrary Loan Document Delivery Services: Best Practices.” Presented to the NMSU Library Staff by the ILL/DD staff.

“Interlibrary Loan/Document Delivery Services: A Case Study at NMSU.” Presented at the New Mexico State Library Association Annual Conference by Vita Montañño, Jivonna Stewart, Cindy Watkins, and Karen Stabler.

“Delivering Agricultural Documents: A Comparison of Suppliers.” Poster Session presented at the American Library Association Annual Conference by Cindy Watkins and Karen Stabler.

“Document Delivery in the New Millennium.” Presented to the Border Regional Library Association Annual Workshop by Cindy Watkins.

“Measuring Service: Strategies and Pitfalls: A Case Study of the NMSU’s ILL/DD Services.” Presented to the New Mexico Library Association Annual Mini Conference by Karen Stabler.

“Automation in ILL/DDS at New Mexico State University.” Presented at the NM CHECS conference (New Mexico Council for Higher Educational Computing Services) by Karen Stabler, Jivonna Stewart, and Cindy Watkins. Proceedings available:
http://www.checs.net/checs_00/presentations/index.html

“Identifying Best Practices for the Interlibrary Loan/Document Delivery Service: A Case Study at NMSU
Presented at Amigos by Karen Stabler.

Submitted to the *Journal of Interlibrary Loan, Document Delivery, and Information Supply* an article
entitled “Benchmarking the NMSU ILL/DD Service: Lessons Learned.”

Project Goals:

Through the benchmarking program of systematically looking at the service, we believe we have improved our service and have identified the areas needing improvement in the future.

We measured our service during year 1999-2000 and for the **first** time know what it actually costs, our turnaround time, information about our users, and factors that influence fill-rate.

We compared costs with three national studies and with the libraries visited.

Through our study we added technology to our workflow and changed procedures.

The project was used to mentor a newly hired librarian.

Made site visits to the following libraries for the following reasons:

- Emory uses ILLiad
- University of Georgia takes a leadership role in developing a state program
- University of Kansas takes a leadership role in the BTP, which we were members at the time
- University of Arizona has been benchmarking for several years
- Arizona State University has moved away from document delivery vendors and for its policies
- Kansas State University uses Endeavor and Clio the two systems that NMSU uses.